Air Quality

Air quality is managed through a complex series of federal, state, and local laws and regulations. The U.S. Environmental Protection Agency (EPA) has the primary federal role of ensuring compliance with the requirements of the Clean Air Act. The EPA issues national air quality regulations, approves and oversees State Implementation Plans, and conducts major enforcement actions. State and local Air Pollution Control Districts and Air Quality Management Districts (AQMD) have the primary responsibility of carrying out the development and execution of State Implementation Plans, which provide for the attainment and maintenance of air quality standards.

The original Air Quality Act was passed in 1963. This act was followed by the Clean Air Act and its amendments of 1970, 1977, and 1990. The Clean Air Act is the primary legal instrument for air resource management. It requires the EPA to identify pollutants that have adverse effects on public health and welfare and to establish air quality standards for each pollutant. The EPA has issued National Ambient Air Quality Standards (NAAQS) for sulfur dioxide, carbon monoxide, ozone, nitrogen dioxide, lead, and particulate matter (PM) [of 2.5 microns ($PM_{2.5}$ in diameter or smaller]. If the NAAQS are violated in an area for over a period of three years that area may be designated in "nonattainment" for acceptable levels of that pollutant, and the state must develop a plan for bringing that area back into "attainment". Title 17 of the California Air Pollution Control Laws sets similar standards for these pollutants. States may impose stricter standards, but never less stringent than National standards. A conformity determination is needed for areas in nonattainment for criteria pollutants. However the conformity rule published by the EPA on April 5, 2010 included a Presumption of Conformity for prescribed fires conducted in compliance with a state Smoke Management Program (SMP). The purpose of a SMP is to:

1. Mitigate nuisance smoke and public safety hazards;
2. Prevent NAAQS violation;
3. Protect public health;
4. Address visibility impacts in Class 1 air sheds; and
5. Establish procedures and requirements for minimizing emissions.

California has an EPA approved SMP therefore there is no conformity analysis required for prescribed fire projects.

The 1977 Clean Air Act amendments set up a process to designate Class I and Class II areas for air quality management. Class I areas receive the highest levels of protection under the Prevention of Significant Deterioration program, which regulates air quality through application of criteria for specific pollutants and use of the Best Available Control Methods.

On the Plumas National Forest, the 1988 Plumas National Forest Land and Resource Management Plan, and the 2004 Sierra Nevada Forest Plan Amendment (SNFPA) final supplemental EIS, provide direction for coordination and cooperation with local Air Quality Management Districts.

The following standing operating procedures (SOP) are from the SNFPA final EIS (2004):

1. Mitigate dust from project activities by including standard dust abatement requirements in sale and project contracts;
2. Conduct prescribed burns when favorable smoke dispersal is forecasted, especially near sensitive Class I areas;
3. Use appropriate smoke modeling software to predict smoke dispersion;
4. Minimize smoke emissions by following Best Available Control Methods;
5. Avoid burning on high visitor use days and notify the public before burning;
6. Consider alternative to burning;
7. Incorporate burn plan data into appropriate modeling software;
8. Comply with Title 17 of the 2004 California Air Pollution Control Laws and interim air quality policy and local smoke management programs; and
9. Follow the Memorandum of Understanding on prescribed burning with the California Air Resources Board and the USDA Forest Service, Pacific Southwest Region.